

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 2-10 are pending in the application, with claims 2, 5, and 7-10 being the independent claims.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0114413 to Zarubinsky et al. (Zarubinsky) in view of U.S. Patent 5,631,969 to Hanson. Applicants respectfully traverse.

In rejecting claim 9, the Examiner alleges that Zarubinsky discloses a method that includes “setting the gain of an automatic gain control, increasing the gain of the automatic gain control stage by a predetermined amount, and repeating these steps until the signal levels of the in-phase and quadrature phase components are greater than or equal to the predetermined minimum threshold value.” In particular, the Examiner refers to paragraphs [0028], [0030], [0031], [0089], and [0092] of Zarubinsky.

Applicants carefully examined Zarubinsky but found no reference to the alleged teachings by the Examiner. In particular, paragraphs [0028]-[0031] of Zarubinsky disclose using a gain controller 200 to control the gain of an amplifier 205 placed in front of the quadrature channel 292 of a radio circuit 299, to ensure that the in-phase and quadrature channels of radio circuit 299 have substantially equal gains.

However, paragraphs [0028]-[0031] of Zarubinsky do not teach or suggest incrementally increasing the gain of the automatic gain controller by a predetermined amount until the signal levels of the in-phase and quadrature phase components are greater than or equal to the predetermined minimum threshold value, as recited in claim 9.

As to paragraphs [0089]-[0092] of Zarubinsky, which the Examiner also refers to in rejecting claim 9, they describe how to calculate a gain control signal W that is provided to amplifier 205. The same paragraphs also disclose that the gain control signal W affects a gain L of amplifier 205, such that the gain L is increased or decreased when a difference exists between the gains of the in-phase and quadrature channels. However, paragraphs [0089]-[0092] of Zarubinsky do not teach or suggest incrementally increasing the gain of the automatic gain controller by a predetermined amount until the signal levels of the in-phase and quadrature phase components are greater than or equal to the predetermined minimum threshold value, as recited in claim 9.

Accordingly, Zarubinsky does not teach or suggest at least the above described features of claim 9. Hanson does not overcome the deficiencies of Zarubinsky as described above.

Further, in rejecting claim 9, the Examiner concedes that Zarubinsky does not teach or suggest "setting the gain of an automatic gain controller to a gain value at which the signal levels of the in-phase and quadrature phase components are less than or equal to the maximum threshold voltage" but alleges that Hanson discloses this feature of claim 9 by referring specifically to FIG. 2 and claim 25 of Hanson.

Hanson is directed to a system for limiting the magnitude of sampled data. In contrast to features of claim 9, however, which are directed to setting the signal levels of the in-phase and the quadrature phase components of a signal between minimum and maximum thresholds, Hanson is concerned with scaling the magnitude of the signal itself by scaling at least one of the in-phase or quadrature phase components of the signal. See e.g. Hanson, claim 25. As such, Hanson does not teach or suggest “setting the gain of an automatic gain control to a gain value at which the signal levels of the in-phase and quadrature phase components are less than or equal to the maximum threshold voltage” as recited in claim 9.

For at least the reasons above, claim 9 is patentable over Zarubinsky and Hanson. Reconsideration and withdrawal of the rejection of claim 9 is respectfully requested.

Allowable Subject Matter

Applicants note with appreciation the Examiner’s indication of allowance of claims 2-6, 8 and 10.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present

application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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